Rucker

admitted March 25. 1819

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Hepatitis

Hepatitis is a disease of the liver arising from inflammation in that viscus: It has a common origin with most or all of the Phlegmasiae: It may be produced by external causes, as blows or bruises; immoderate exercise; concretions in the substance of the liver; summer heats; Winter colds, & especially variable moist weather; high living; intemperance in vinous & spirituous liquors; and long protracted intermittent,

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& remittent fevers. Why these latter causes should direct inflammation to some particular party, or viscera rather than others, seems to me almost inexplicable: It has generally I believe been attributed to the debility of the party affected.

Dr Rush has remarked that intemperance in the use of Wine generally produces Gout: And intemperance in ardent spirits occasions diseases of the liver: I have found this remark true in the Western States, & especially in Tennessee. In that Country the gout is hardly known on account of the scarcity of wine, but the profuse use of Whiskey adds annually to an sick list hundreds laboring under Hepatitis.

But perhaps the most frequent of the causes which I have enumerated is the long protraction of our Autumnal Intermittent, & Remittent bilious fevers.

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with which our citizens are so frequently afflicted. The absurd opinion that this disease is the offspring of Cinchona, & other medicines used by practioners is clearly disproved by the fact of its greatest prevalence among those who employ no remedies in the cure of Intermittents; and by this farther proof, if more testimony be required that the bark itself frequently cures patients labouring under chronic Hepatitis after premising some general evacuant.

Blows on the head, & a burning vertical sun, have been ranked among the causes of Hepatitis; And indeed we should not at all wonder at it, when we take into consideration the close connexion, and very direct sympathy which exists between the head & the seat of this disease: This is particularly evinced by an alteration of the qualities of the bile from injuries of the skull; and inversely by the facility with which delirium is produced from inflammations of the liver

According to most writers who have treated

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of hepatitis it is most frequent in damp tropical, or sultry climates. It has exacted a full share of consideration from the East & West India practioners: And so well are those countries calculated for its production that Europeans & interior Americans on their arrival there expect its attack with almost as much certainty as they would the Plague when they had inhaled its originating atmosphere.

May not marsh miasmata produce inflammation of the liver in the same way that Dysentery is supposed to have its origin from febrile miasmata?

It is thought that the cholerick & melancholick temperaments are propitious to the nurture of this disease and that adults are oftener afflicted with it than those in earlier life: Some have conceived that ~~the~~ the small lobe of the liver is oftenest the seat of the disease. It has been believed that the outer or convex surfaces are oftener attacked than the inferior or concave. But in a remedial point of view these discussions are of little importance, & indeed the truth

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is only to be obtained by dissection after the death of the patient.

In some cases the pain extends into the left shoulder, and then the left lobe is supposed to be diseased: But all the grounds we possess of determining the precise situation of the complaint, without recourse to dissection, are deducible from the conjunction of those symptoms that are attendant upon the inflammation of the neighbouring viscera. Viz: if there is evident marks of Gastritis; acute pain, and burning heat in the stomach, hickup & tension in the gastrick region we conclude that the parts nearest the stomach are affected. But if the patient has a difficulty in breathing & dry cough, together with the symptoms of pneumonick inflammation, we are induced to believe that the disease is seated contiguous to the diaphragm.

Hepatitis has been divided by pathologists into Acute and Chronick, according as it is supposed to partake of Acute, or indolent inflammation, or in

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the language of Dr. Thomas, according as it shows the essential character of genuine inflammation or exhibits symptoms of less violence as to its inflammatory tendency: Though the gradations from one to the other are so regular, and easy that we will find it very difficult to establish a proper, or palpable line of demarcation.

Acute Hepatitis is ushered in with a sense of chilliness, succeeded generally by a severe pain in the right hypochondrium, extending along the side into the right shoulder, & clavicle. The patient is affected with a severe cough & dyspnoea; lies with difficulty on any other than the side affected, makes frequent efforts to vomit, owing to a great nausea, & sickness at stomach; sometimes large quantities of bilious matter are dislodged; but in a majority of cases there is a deficiency of biliary secretion; the bowels are generally inactive and the contents when excreted commonly indicate too little bilious matter; there is great thirst with a want of appetite,

* There is great debility, induced probably by the very constant vigilance which is attendant on this disease; And because of the very great sympathy which exists between the head and liver. Delirium more generally supervenes on this than any other of the Phlegmasiae except gastritis.

the skin is hot and dry; and when the disease has continued a few days, it together with the tunica conjunctiva of the eyes are tinged of a deep yellow colour. The tongue is covered sometimes with a white, & sometimes a yellow fur; The pulse is frequent hard and strong; The blood when drawn exhibits a buffy coat, and its serum generally indicates a superabundance of bile.*

But this disease is attended with very various symptoms, at one time there shall be chills & fevers together with every other febrile symptom attended with a tightness a cross the chest, or precordia for some days before the discovery of the diagnostic symptoms of the disease; And at another time acute pain in the neighbourhood of the liver shall be a mong the first symptoms. The pain is some times fixed, at others desultory and shifting; One while it is acute at another obtuse & deep seated, The right hypochondrium, breast, shoulder, & clavicle are usually the seat of affliction. Wandering-

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pains are occasionally felt in the back, loins, & and extremities: But to enumerate all the possible diversities of character under which this disease marks its attack, would lead me into a tediousness of detail that would not well comport with the precise and limited manner in which I intend to treat this subject. Let what has been said suffice for the history of the symptoms of genuine or Acute Hepatitis.

Chronic Hepatitis, is attended by most of the previously described symptoms, but is characterized by their mitigated forms. For sometimes persons have been instructed after death, and have discovered in the substance of the liver, without having even complained of any other than a very slight pain in the right hypochondrium; but in the general the pain extends to the shoulder, and there is a considerable constriction in the region of the diseased viscus. There is generally a loss of appetite

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attended with flatulency, and pains in the stomach: The digestion is impaired: The complexion is morbidly yellow: The eyes are of a yellowish tinge. The bowels are constipated and whatever is discharged is of a colour resembling white clay: The urine is of a deep saffron colour depositing a red sediment, & a viscid mucus. We may most generally by producing a relaxation of the muscles of the abdomen discover a very considerable increase of the size of the liver.

When this viscus grows so large it not unfrequently produces a difficulty of breathing, owing to its pressure upon the diaphragm & lungs. The chronic species of hepatitis is more frequently produced by calculous obstructions than the acute. When the bile secreted does not flow freely, I have no doubt but that it is a cause of irritation, & consequent inflammation in the gland secreting it: We know that a superabundance

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and long retention of milk is some times the cause of mammary abcess. I might remark here likewise that chronick Hepatitis more frequently supervenes on intermittent fever, than the acute species. Infact swelling and induration of the liver are almost certain to follow all difficultly cured agues.

Hepatitis is attended with so many & such various symptoms, and wears the livery of so many of the other Phlegmasæ, that it is at times very difficult to decide upon the certainty of its existence; and infact some times the inflammation is so extended among the neighbouring parts, that many of the viscera are involved in the consequences. It is extremely difficult some times to distinguish it from Gastritis; But there is generally in this latter disease a great prostration of strength; the pulse is weaker and quicker; & the stomach is more intolerant of food and drink. The discriminating marks between it and pneumonia, are a sallow coun

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tenance cough without much expectoration; little or no dyspnoea; and above all the pain in the right shoulder and clavicle: The spasmodic affection of the gall ducts is sometimes mistaken for inflammation of the liver: Hepatitis may however be known from this disease by a permanency of pain, a want of nausea; and by the patients indifference of position, as it respects the angle of the body; for in the spasmodic affection of the gall ducts the patient is only quiescent when the thighs are bent forward upon the body. I have likewise known the pain of the shoulder when the symptoms of the trunk were obscure, to be mistaken for rheumatism: but it should be remembered that redness and some degree of swelling and a metastatic disposition generally characterize the rheumatic affection.

The inflammation of the liver like all others of the Phlegmasiae terminates either by resolution suppuration, gangrene or scirrhus. And

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these termenations are governed by the violence of the symptoms; or the proper, or improper use of remedies. We can be assured of the ~~[illegible]~~ ~~of the~~ resolution of the inflammation by an abatement of the febrile symptoms, without much loss of strength; a return of the appetite & an improvement of the complexion: Independent of the remedies employed there are sometimes vicarious discharges of blood from the nose or hemorrhoidal vessels; or a preternatural secretion of mucus from the bronchia. The disease sometimes terminates in a copious diaphoresis, — a bilious diarrhoea or plentiful urinary discharge, depositing a copious sediment. Erysipelas has likewise been known to appear on the solution of this disease.

But if after all the remedies that should be employed there is no abatement of the pain, & pyrexial symptoms; the skin dry, and hot, the tongue parched, and the pulse full &

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frequent, attended with rigors, we may predict approaching suppuration. But of this however we may soon be certain, by a sudden cessation of pain; great weight in the region of the liver; the paroxism of the fever increasing in the evening: flushing of the face, night sweats and other hectic symptoms; for these are almost unerring tokens of the formation of matter in some internal part. Constant hiccup cold extremities and sinking pulse denote gangrene.

The termination in gangrene is very rare in temperate climates, and in fact it is said to occur but seldom in the tropics. When gangrene supervenes there is not the least ground of hope for recovery: safety is to be sought for in Resolution alone; Nevertheless patients sometimes recover after the formation of matter, if there happens to be a favorable evacuation. Inflammation has been known to attach the liver to the peritoneum, and in such a case the matter may be drawn

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off by a suitable opening to the patient recover. Or the concave surface may attach itself to the stomach or intestines and by the process of ulceration an opening may be formed for the passage of the pus into their cavities. I have seen one or two cases where the matter was expectorated, and the right shoulder joint became emphysematous: There I supposed the abscess to be situated on the convex surface adjoining the diaphragm and that it together with the lungs was involved in the inflammation: And the ulcerative process formed a communication that admitted the passage of the matter into the lungs whence it was expectorated in the same way as if it had been primarily formed in the viscera.

But I am induced to believe that the cases in which the matter is evacuated in any one or all of the ways above mentioned, are very small in comparison with those in which the pus is retained, or merely discharged in the

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cavity of the abdomen; and that consequently the proportion of cures are very small compared with those ending fatally. In the last stage of this disease those symptoms supervene which are present in the last stage of pulmonary consumption; Hectic fever, profuse night sweats, Colliquative Diarrhoea &c.

Schirrosity is sometimes a termination of Acute Hepatitis, but it most commonly follows an attack of the Chronic species; And in fact we frequently find the liver very much swelled without discovering any of the symptoms of inflammation, this is particularly the case in that swelling of the liver vulgarly called hepatic ague cake which succeeds to an attack of Intermittent fever. The Chronic species hardly ever terminates in suppuration, & hence we may infer that danger is principally to be apprehended from schirrosity. Induration of the liver destroys the healthy biliary secretion and thereby ruins digestion, nutrition & assimilation

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tion, and consequently produces emaciation dropsy and death. I have generally found that those patients who could trace the cause of their disease to the excessive use of ardent spirits more frequently died dropsical than any others.

Treatment.

I shall now proceed to detail the practice that is proper to be pursued in the treatment of this disease: And as first in order I shall commence with Acute Hepatitis. The great importance of the liver argues the necessity of suffering no time to intervene between the commencement of this formidable disease and the employment of our remedies. It is true that the apprehension of immediate fatality, from an attack of Hepatitis is not so great as from inflammation of some of the other viscera; but death ultimately is not

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the life certain. Great inflammation of the liver without a speedy, & proper recourse to remedies, is as necessarily fatal as gastritis enteritis or pneumonia.

The leading indication is to lessen, or alter the inflammatory action, so as to prevent the supervention of gangrene, or that almost equally alarming termination the formation of matter in that viscus. To meet this view we must direct the strictest antiphlogistic regimen; copious depletion, & spare diet; But it will require some judgement to determine how long it should be continued; for very little advantage can be expected from it when the inflammation has advanced beyond the probability of resolution or when suppuration has actually commenced. For the purpose above mentioned we should subtract eighteen or twenty ounces of blood as soon as we shall have satisfied ourselves of the nature of the complaint: I have ordered a large quantity, be

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cause I conceive it of the utmost importance to commence with as large a bleeding as the patient can well bear. We find recoveries much more certain & speedy from this method of evacuating the vascular system, than when small quantities are taken, and the operation is often repeated: In a farther use of the lancet I should regard the admonitions of the pulse and the signs exhibited on an examination of the blood. If the first by its strength, fullness, & tension, and the latter by the appearance of a buffy coat, should indicate its necessity, I would repeat the operation occasionally. Some practitioners have confined venesection to those cases in which the most violent symptoms prevail; But if on visiting my patient, I can be certain that he has just been attacked, even though the symptoms be mild, and indicate the existence of little inflammation, I should pursue the same treatment, because I know the equivocal & insidious

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manner in which it frequently makes its attack. There is no doubt that many lives have been lost by injudiciously wavering between the propriety & impropriety of bleeding under such circumstances. If we delay the remedy only for a short time we permit the inflammation to proceed to the suppurative stage. It is likewise important to let the blood flow from the general circulation in a large stream. By doing so it more effectually lessens febrile action, and permits the blood vessels to retract to a healthy size & caliber. When the blood merely trickles from a small orifice it contributes very little to the relief of the patient.

Cupping & leeching have been likewise recommended with advantage after the use of general bloodletting; But to be effectual they must be used with greater liberality than is customary with European practitioners. The employment of only three or four leeches

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has little or no effect in removing local congestion, whereas the greatest good often results from using twenty thirty or even fifty at a time.

As auxilliary to blood letting we should not neglect the application of Epispastics as soon as the pulse has been reduced. The application of a large blistering plaster to the hypochondriac region, very frequently ensures the most happy result. The employment of so stimulating a remedy was for a long time totally irreconcilable with the principles of theorising until Mr John Hunter discovered this universal law of the animal economy that no two actions of equal force could exist in the system at the same time. Thus it is we cure one disease by exciting another. May I not use this language that as the resolution of inflammation from epispastics is earlier than that of common phlegmonous inflammation according to the above law of Mr Hunter, a

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general resolutive diathesis is produced, and a solution of the inflamed viscus takes place in consequence of that general disposition to resolution. Does the benefit of blistering result sooner than the artificial inflammation begins to be resolved?

But to return: I think it much better to apply a large Epispastic at first than to use small ones frequently repeated; because the benefit expected must be soon or we can not hope for any: After suppuration commences we may decline their use.

There is another very important part of the antiphlogistic treatment to which I shall advert, Viz: the use of purgatives. It is proper to commence with this class of remedies as early as practicable, or as soon as we have bled the patient. Almost any of the cathartics will answer the intention. Doctor Saunders who has treated very elegantly &

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learnedly on the diseases of the liver, speaks in the highest commendation of the Neutral Salts: But the mercurial purgatives have been generally considered best by practitioners in the Southern States: They are believed by them to possess almost a specific power in emulging the biliary vessels & thereby relieving them from the engorgement that prevails in Hepatitis. It is usual to give 15. or 20 grs. of Calomel & if it is tardy in its operation to superadd some one of the neutral Salts: Sulphate of Soda, Sulphate of Magnesia or Super tartrate of Potash: I prefer the latter because it not only acts upon the bowels, but excites a gentle diaphoresis, which is well known to have a wonderful effect in subduing inflammation. To the same end nauseating doses of Tartar emetic & the Antimonials are given, as likewise some of the vegitable emetics.

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If the calomel does not act effectually which is known by the quantity, and quality of the discharge, it is repeated on the second or third day, being always however guarded by the same principle which regulate the use of the lancet. Some practitioners use Mercury in this species of Hepatitis not merely with the intention of opening the alimentary canal, thereby lessening febrile action; But if after persuing the depleting plan pretty extensively they find that the inflammation is hard to subdue, they give calomel in smaller quantities with the view of exciting a salivation = Thus instituting a new action which supercedes the morbid one. Doctor Saunders objects to the use of Mercurial preparations in acute Hepatitis "That they are too stimulating for the already too much excited system. To this I might reply that the advantages gained by their specific action on the liver more than counterbalance any injurious effects resulting from the stimu-

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lating powers which they are presumed to possess. Calomel by exciting an action of its own in the liver checks the morbid inflammatory action in Hepatitis.

If the means above directed should not interrupt the tendency to suppuration it will be necessary to change the course: to give bark, wine, and a nutricious diet in order to procure the formation of healthy pus. Or if from the symptoms we are convinced that the inflammation has changed its form to that of the chronic kind, we will find it proper to pursue the treatment necessary for that disease. In this too we find the preparations of mercury to be the best medicines. They are not however given with the view of purging alone, but mostly for the purpose of exciting a salivation. They should be given in small doses frequently repeated — regulated by a coppirish taste in the mouth & a very gentle ptyalism. They promote the secretion of the bile, & excite a

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gentle perspiration. To increase the action of these they are sometimes combined with a small quantity of some of the Antimonials & when they pass too rapidly through the alimentary canal it is usual to combine with them a small quantity of Opium in the form of pill. The following formula from Dr Thomas I have found a very good one.

℞. Hydrargyr. Submurias — ʒj
Opii Purif. . . . . ʒß
Antimon. Tartarizat. — grs. V.
Syrup. Simpl. q.s. M.

Ft Massa in Pilul. LX. divid. 1 mane et nocte quotidie sumenda.

The following is likewise a very good formula

℞ Hydrargyr. Cor. Mariat. grs. VI
Opii Purif. — " VI
Callicoc. Ipecac.ª — . . . XXIV.
Simpl. Syrup. q.s. M.

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℞. massa in Pillul. xlviii. divide
.. give 2 or 3 in the course of 24 hours as may
.. be necessary.

As auxiliary to the above method of giving mercury we may rub it on the skin in the form of ointment. It has generally been directed to be rubbed either immediately over the diseased part or on the inside of the arms, & thighs near the groins & axilla; but I am uncertain which is best, owing to the mysterious action of mercury; Perhaps it would be preferable to use it immediately over the diseased viscera after employing revulsives.

Blisters are likewise very useful in this form of Hepatitis and especially when it has become Scirrhous; But here a constant succession of moderate sized blisters are better than keeping up a discharge from an old one. The disease has become confirmed and it will

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require the use of remedies for a considerable time. The practice above detailed is very successful in that sclirosity which follows Intermittent & Remittent Fevers.

It is necessary that patients labouring under Hepatitis should observe a very strict dietetic regimen. The diet best adapted for them is such as is nourishing and easy of digestion; avoiding however salted meats and greasy substances. When they become convalescent they may be allowed to improve their diet by the addition of broths & light animal food. But in every stage of this complaint the luxurious must abandon the pleasures of sumptuous tables; And the dram drinkers must lay aside the use of the bottle: Water is their best beverage, but if they must have something stronger, they had best use wine largely diluted. Late hours and night air should be cautiously avoided